(instant access to psychiatric care for all neurotic patients) and those of the Department of Health (concentration on the severely mentally ill). By trying to please everyone psychiatric services have succeeded in pleasing no one and have failed to develop the tightly defined, highly staffed, and narrowly targeted approaches that are known to be effective. Rather than relieve the competing pressures, *Modernising Mental Health Services* has increased them by guaranteeing 24 hour open access while insisting that resources should be concentrated on those with greatest need. Moreover, it has added a new pressure—responsibility for those with untreatable personality disorders.

Bureaucracy—Psychiatrists, like other doctors, have experienced the unfettered growth of non-clinical demands, but they also have their own special bureaucracy—the care programme Described (by one of its creators) as "overwhelming," the care programme approach is a bureaucratic nightmare of dubious effectiveness that must be applied to all patients in contact with psychiatric services. <sup>9</sup> 10 Care programmes emerge unscathed from the proposed reforms, their survival reflecting the government's singleminded pursuit of the unobtainable—totally safe community care. The unpalatable fact is that since homicide is rare, attempts to prevent it are subject to the low positive predictive values inherent in predicting any rare phenomenon. Thus procedures designed to reduce the risk of homicide must involve high costs relative to their returns (even if effective). For patients these costs are a drastic curtailment of civil liberties and a custodial relationship with their therapists. For clinicians the cost is time wasted in the empty rituals of universal care programming and risk assessment. Thus the whole process of providing effective care is distorted and degraded while the rates of homicide remain unchanged.

Shortage of staff—Psychiatric services in several parts of Britain are becoming exsanguinated.<sup>11</sup> Fourteen per cent of consultant posts in general psychiatry are vacant, and similar shortages exist among other key staff. The shortfall reflects high rates of early retirement and low rates of recruitment (as specialist registrars seek accreditation in other subspecialties).<sup>6</sup> In a survey by the Royal College of Psychiatrists the commonest reason for early retirement was not lack of resources or workload but bureaucracy.<sup>11</sup>

Thus the government, by underestimating and exacerbating the disparity between supply and demand, risks undermining its own strategy. It is time to cut bureaucracy and define the boundaries of psychiatric care.

Max Marshall Senior lecturer in community psychiatry

University of Manchester, Academic Unit, Royal Preston Hospital, Fulwood, Preston PR2 4HT

## Opening up BMJ peer review

A beginning that should lead to complete transparency

The *BMJ* has until now used a closed system of peer review, where the authors do not know who has reviewed their papers. The reviewers do, however, know the names of the authors. Most medical journals use the same system, but it's based on custom not evidence. Now we plan to let authors know the identity of reviewers. Soon we are likely to open up the whole system so that anybody interested can see the whole process on the world wide web. The change is based on evidence and an ethical argument.

Peer review is at the heart of the scientific process yet was until recently largely unexamined. Now we begin to have a body of evidence on peer review (www. wame.org), and it illustrates many defects. Peer review is slow, expensive, profligate of academic time, highly subjective, prone to bias, easily abused, poor at detecting gross defects, and almost useless for detecting fraud. Evidence to support all these statements can be found in a book by Stephen Lock, my predecessor as editor of the *BMJ*, three special issues of *JAMA*, and a forthcoming book. The benefits of peer review are

harder to pin down, but it is probably more useful for improving what is eventually published than for sorting the wheat from the chaff.<sup>6</sup>

Those researching peer review have tried to find better methods, and one of the first randomised controlled trials suggested that blinding reviewers to the identity of authors would lead to better opinions.<sup>7</sup> Two bigger trials—one that included many journals<sup>8</sup> and one from the *BMJ*<sup>9</sup>—both failed, however, to find any benefit.<sup>10</sup> This led to the idea that open peer review might be a better option, and we publish today a randomised controlled trial of open peer review conducted at the *BMJ*.<sup>11</sup> It found that open peer review does not lead to higher quality opinions, but nor does it lead to poorer quality ones, so we are introducing open review—for largely ethical reasons.

The arguments for and against open peer review were explored in depth five years ago in *Cardiovascular Research*. <sup>12</sup> <sup>13</sup> Of six editors asked to contribute commentaries all were for more research, none was against open peer review, and three, including Stephen

Papers p 23 Education and debate p 44

BMJ 1999;318:4–5

Department of Health. Modernising mental health services. London: Department of Health, 1998.

Warden J. England abandons care in the community for the mentally ill. BMJ 1998;317:1611.

<sup>3</sup> Storer D. Too many patients; too few psychiatrists. Psych Bull 1998;22: 724-5.

<sup>4</sup> Deahl M, Turner T. Training in adult general psychiatry. SpRs in cloud cuckoo land. *Psych Bull* 1998;22:339-40.

<sup>5</sup> Burns T, Leibowitz J. The care programme approach: time for frank talking. Psych Bull 1997;21:426-9.

<sup>6</sup> Milton J. So who wants to be a consultant general psychiatrist. *Psych Bull* 1998-99:345-7

<sup>7</sup> Storer D. Things have to get better. Psych Bull 1997;21:737-8

<sup>8</sup> Marshall M, Lockwood A. Assertive community treatment for people with severe mental disorders. *The Cochrane Library*. Cochrane Collaboration. Oxford: Update Software, 1998. Oxford: Update Software, 1998.

Kingdon D. Reclaiming the care programme approach. Psych Bull 1998;22:341.

<sup>10</sup> Marshall M, Gray A, Lockwood A, Green R. Case management for people with severe mental disorders. *The Cochrane Library*. Cochrane Collaboration. Oxford: Update Software, 1998.

<sup>11</sup> Kendell RE, Pearce A. Consultant psychiatrists who retired prematurely in 1995 and 1996. *Psych Bull* 1997;21:741-5.

Lock (my predecessor), declared themselves in favour.<sup>13</sup> Science is progressively moving away from anonymity. Anonymous editorials in scientific journals were common a decade ago; now they look anachronistic.

The primary argument against closed peer review is that it seems wrong for somebody making an important judgment on the work of others to do so in secret. A court with an unidentified judge makes us think immediately of totalitarian states and the world of Franz Kafka. A related argument is, in the words of Drummond Rennie (deputy editor of JAMA), that identifying the reviewer links "privilege and duty, by reminding the reviewer that with power comes responsibility: that the scientist invested with the mantle of the judge cannot be arbitrary in his or her judgment and must be a constructive critic." All editors have seen curt, abusive, destructive reviews and assumed that the reviewer would not have written in that way if he or she were identifiable. Openness also links accountability with credit. One important defect of closed review is that reviewers don't receive academic credit. Finally, openness should eliminate some of the worst abuses of peer review, where reviewers-under the cloak of anonymity-steal ideas or procrastinate.

The main argument against open peer review—a sad one-is that junior reviewers will be reluctant to criticise the work of senior researchers for fear of reprisals. This fear is particularly acute for researchers whose livelihoods depend on winning grants. Junior reviewers, those under 40, have time and again been shown to give the best opinions.14 By moving to open review we may thus be ruling out the best reviewers. We recognise these arguments, but we don't think that they outweigh the arguments for open review; in particular, BMJ authors seem broadly in favour of open peer review.11 A few reviewers have said that they don't want to review if they will be identified, and anyone can decline to review a particular paper. Nevertheless, we hope our small move will contribute to a broader culture change so that junior researchers cease to fear reprisals from senior ones.

From this week, for all new papers that we review, the *BMJ* will identify to authors the names of those who have reviewed their papers, including the names of our in house editorial and statistical advisers. But we expect to go further, researching as we go. Soon we will probably start to list reviewers at the end of articles. Then we may move to a system where authors and readers can watch the peer review system on the world wide web as it happens and contribute their comments. Peer review will become increasingly a scientific discourse rather than a summary judgment. Through such openness we will hope to show that peer review by journals does add value to the scientific process and that we will thus have a place in an electronic world where authors can potentially go straight to readers.

Richard Smith Editor, BMJ

## Treating thyrotoxicosis in pregnant or potentially pregnant women

The risk to the fetus is very low

hyrotoxicosis affects up to 0.2% of pregnant women. If left untreated it is associated with increased fetal mortality and morbidity. Treatment is with antithyroid drugs such as propylthiouracil or carbimazole, with  $\beta$  blockers reserved for presurgical treatment and immediate control of severe thyrotoxic symptoms. Considerable concern exists, however, about the potential adverse fetal consequences of maternal antithyroid treatment, and sometimes conflicting or inappropriate advice is given. Women exposed to antithyroid drugs or radioiodine immediately before or in early pregnancy need accurate and timely information when deciding whether to proceed with the pregnancy.

There are two concerns about antithyroid drugs for thyrotoxicosis: that the drugs cause hypothyroidism in the fetus and that they have teratogenic effects. These drugs cross the placenta and can sometimes cause fetal hypothyroidism and goitre.<sup>3</sup> The fetal thyroid begins to develop at 5-6 weeks' gestation, with follicles and colloid production at 10-12 weeks. Adverse effects on fetal thyroid function are thus unlikely unless treatment begins after 10 weeks' gestation.<sup>4</sup> In two studies in which antithyroid therapy was used in moderate doses maternal and fetal outcomes were satisfactory, regardless of which antithyroid drug was used.<sup>2 5</sup> Close monitoring of thyroid function, roughly once a month, is important because the need for

BMJ 1999;318:5-6

Lock S. A difficult balance: editorial peer review in medicine. London: Nuffield Provincials Hospital Trust, 1985.

<sup>2</sup> Guarding the guardians: research on editorial peer review: selected proceedings from the First International Congress on Peer Review in Biomedical Publication. JAMA 1990;263(theme issue):1309-456.

<sup>3</sup> Second International Congress on Peer Review in Biomedical Publication. JAMA 1994;272(theme issue):91-173.

<sup>4</sup> Third International Congress on Peer Review in Biomedical Publication. JAMA 1998;280(theme issue):213-306.

<sup>5</sup> Godlee F, Jefferson T. Peer review in medicine. London: BMJ Books (in press).

<sup>6</sup> Pierie JP, Walvoort HC, Overbeke JA. Readers' evaluation of effect of peer review and editing on quality of articles in the Nederlands Tijdschrift voor Geneeskunde. *Lancet* 1996;348:1480-3.

<sup>7</sup> McNutt RA, Evans AT, Fletcher RH, Fletcher SW. The effects of blinding on the quality of peer review. JAMA 1990;263:1371-6.

<sup>8</sup> van Rooyen S, Godlee F, Evans S, Smith R, Black N. Effect of blinding and unmasking on the quality of peer review: a randomised trial. JAMA 1998;280:234-7.

<sup>9</sup> Justice AC, Cho MK, Winker MA, Berlin JA, Rennie D, and the PEER investigators. Does masking author identity improve peer review quality: a randomised controlled trial. JAMA 1998;280:240-2.

Goldbeck-Wood S. Evidence on peer review—scientific quality control or smokescreen? BMJ 1999;318:44-5.

<sup>11</sup> van Rooyen S, Godlee F, Evans S, Black N, Smith R. Effect of open peer review on quality of reviews and on reviewers' recommendations: a randomised trial. BMJ 1999;318:23-7.

<sup>12</sup> Fabiato A. Anonymity of reviewers. Cardiovasc Res 1994;28:1134-9.

<sup>13</sup> Fletcher RH, Fletcher SW, Fox R, Horrobin DF, Lock S, Pepper K, et al. Anonymity of reviewers. Cardiovasc Res 1994;28:1340-5.

<sup>14</sup> Goldbeck-Wood S. What makes a good reviewer of manuscripts. BMJ 1998;316:86.